

# EVOJET

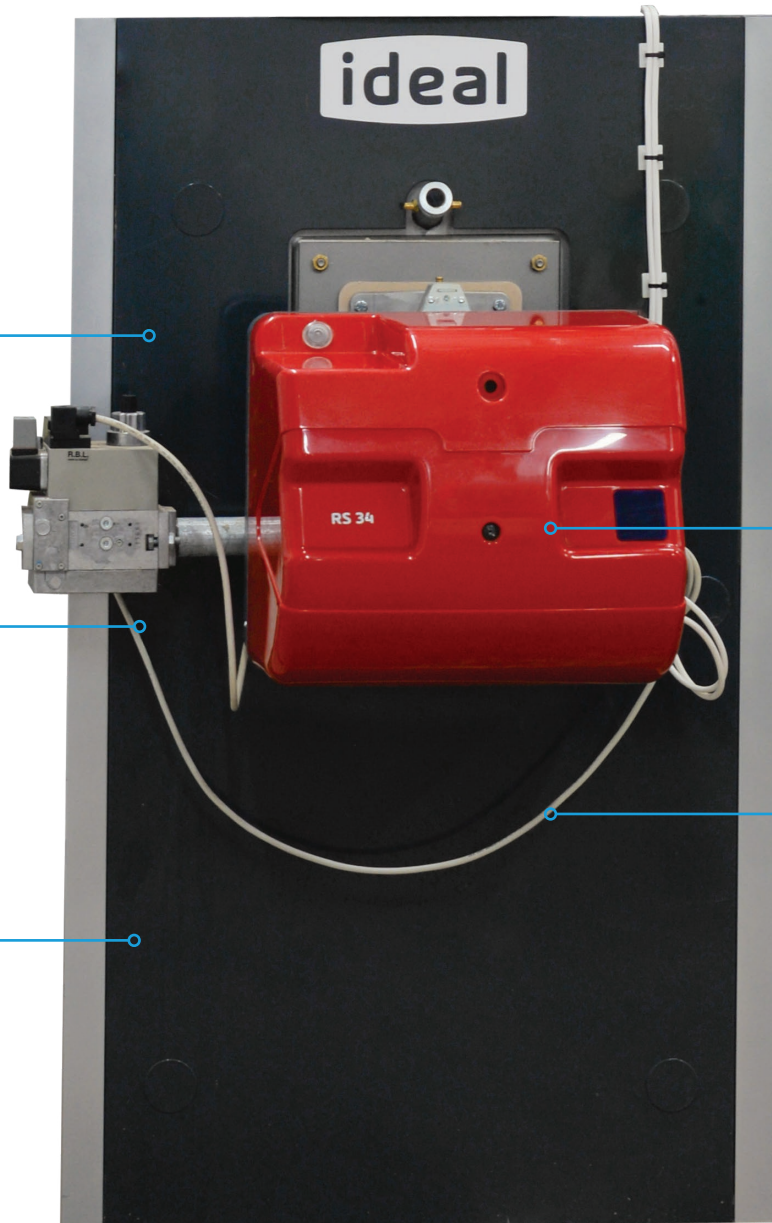
1000kW



Pressure Jet



Floor standing



Dual fuel

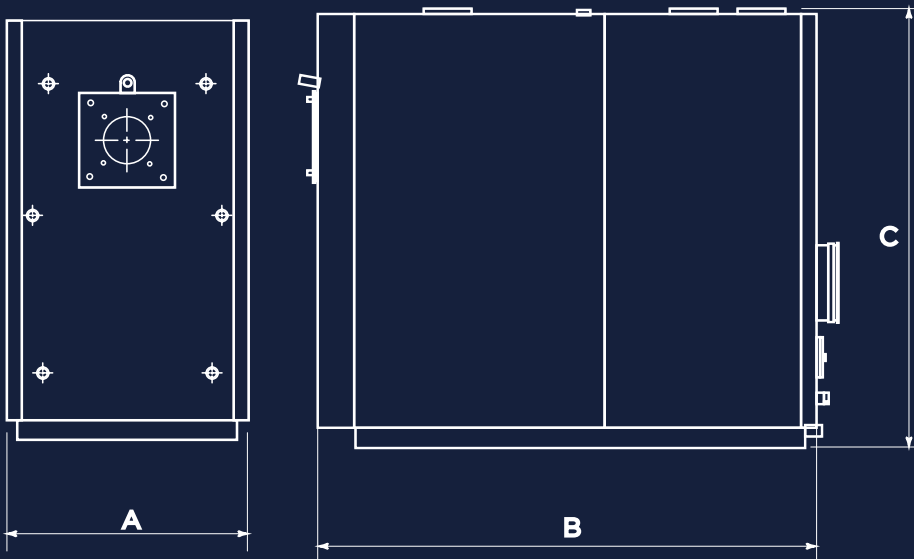


BIM

# Features & specification

The Evojet condensing range of pressure jet boilers are available in 10 models with outputs from 150-1450kW. Floor standing boilers for applications in either single or multiple configurations.

- Up to 109.3% part load efficiency
- Triple flue pass for high operating efficiencies
- Designed to operate up to 40°C ΔT providing minimum flow rates are achieved
- Multiple burner options available (see page 3 for details)
- Dedicated low temp return
- Modulation via 0-10 volt BMS, or RWF controller
- Stainless steel heat exchanger



## DIMENSIONS & CLEARANCES

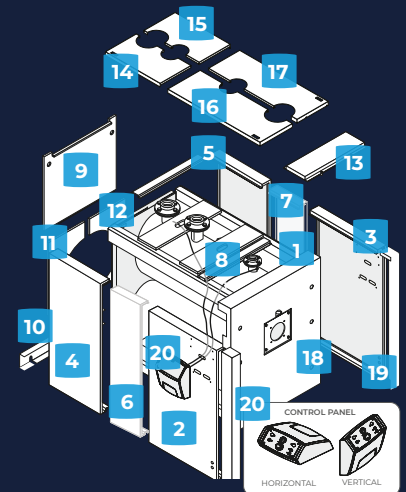
| BOILER | DIM A | DIM B | DIM C |
|--------|-------|-------|-------|
| 1000   | 1060  | 2810  | 1910  |

The following minimum clearances must be maintained for operation and servicing:

➔ FRONT: **BURNER LENGTH**

↓ REAR: **1000mm**

↔ SIDES: **300mm**



## BOILER ASSEMBLY

### EXPLODED VIEW

#### KEY

1. Boiler frame
2. Side Panel
3. Side Panel
4. Rear Panel
5. Rear Panel
6. Central side panel
7. Central side panel
8. Top cross beams
9. Top rear panel
10. Bottom rear bracket
11. Bottom rear panel
12. Bottom rear panel
13. Front top panel
14. Top panel
15. Top panel
16. Top panel
17. Top panel
18. Front trim panel
19. Front trim panel
20. Control panel

# EVOJET 1000kW

## TECHNICAL SPECIFICATIONS

### GENERAL

|                            |      |  |
|----------------------------|------|--|
| Dry Weight                 | KG   | 2085   |
| Boiler Dimensions          | mm   | 1910 (H)<br>x 1060 (W)<br>x 2810 (D)                           |
| Boiler Clearances          | mm   | Front: 2700<br>Left Side: 300<br>Right Side: 300<br>Rear: 1000 |
| Seasonal Efficiency        | %    | 95.7   |
| Min Gas pressure (Nat Gas) | mbar | 20*  |

Burner & Gas Train selections for Natural Gas applications are based on standard design requirements (as stated in IGE/UP/2) of 20mbar gas pressure available at the appliance under max flow conditions. If this pressure is not available, or the available gas pressure is higher, or for alternative fuel types - please consult your sales contact for alternative matching.

\*For certain Low NOx burners a gas booster may be required. Boosters are sized presuming 20mbar incoming gas pressure.

### HYDRAULICS

|                                   |        |        |
|-----------------------------------|--------|--------|
| Pressure drop $\Delta T$ 10°C     | mbar   | 121.5  |
| Pressure drop $\Delta T$ 20°C     | mbar   | 30.6   |
| Nominal Flow Rate $\Delta T$ 10°C | l/m    | 1430.6 |
| Nominal Flow Rate $\Delta T$ 20°C | l/m    | 713.6  |
| Min Flow Rate                     | l/s    | 3.16   |
| Min Working Temperature           | °C     | 30     |
| Max Working Temperature           | °C     | 95     |
| Min Working Pressure              | bar    | 1      |
| Max Working Pressure              | bar    | 6      |
| Max Static Head Of Water          | metres | 60     |
| Condensate Connection             | inches | 1.25   |
| High Limit Set Point              | °C     | 110    |
| Flow Size                         |        | G2"    |
| Water Content                     | litres | 1395   |
| Return High Temperature           | DN     | 80     |
| Return Low Temperature            | DN     | 125    |

PERFORMANCE FIGURES FOR OIL MODEL AVAILABLE ON REQUEST.

### BURNER

|                       |                 |             |
|-----------------------|-----------------|-------------|
| Fuel                  |                 | Natural Gas |
| Furnace Pressure      | mbar            | 6.3         |
| Furnace Volume        | dm <sup>3</sup> | 845.0       |
| Min Burner Length     | mm              | 250         |
| Burner Diameter       | mm              | 179         |
| Boiler Output (80/60) | kW              | 982         |
| Boiler Output (50/30) | kW              | 1070        |
| Boiler Input          | kW              | 1000        |

### FLUE/AIR INLET

|                              |        |          |
|------------------------------|--------|----------|
| Flue Size                    | mm     | 350      |
| Flue Gas Mass Flow Rate      | kg/sec | 0.43     |
| Min-Max Flue Gas Temperature | °C     | <45÷75** |

\*\* Dependent on return temperature.

### ELECTRICAL

|                       |      |                     |
|-----------------------|------|---------------------|
| Electrical Supply     |      | 230 ± 10% 50Hz 1 Ph |
| Current (Max No Pump) | amp  | 6.3                 |
| Power Consumption     | watt | 250                 |
| Fuse Rating           | amp  | 6.3T                |
| Insulation Class IP   |      | X4D                 |

### CONTROL/BOILER/BURNER OPERATION

|                             |          |
|-----------------------------|----------|
| 0-10V DC BMS or Siemens RWF | Optional |
| High Limit Protection       | Standard |
| Boiler Temperature Gauge    | Standard |
| Control Thermostat Sensor   | Standard |
| Safety Thermostat Sensor    | Standard |
| Two Stage Thermostat        | Standard |

### BURNER MATCHING OPTIONS

|           |     |
|-----------|-----|
| NG        | Yes |
| LPG       | Yes |
| Pre-mix   | Yes |
| Oil       | Yes |
| Dual Fuel | No  |

2 Stage, Modulating, Standard and Low NOx options available; please contact us for full details.

## SUGGESTED ENGINEERING SPECIFICATION

The Suggested Engineering Specification is wording designed for specifiers to copy and paste into their specifications to ensure inclusion of Ideal Heating commercial boilers.

### OVERVIEW

The boiler must fully automatically controlled, floor standing condensing boiler with a triple flue pass stainless steel heat exchanger. While they are designed primarily for central heating purposes, in conjunction with a suitable storage cylinder they can also be used to produce domestic hot water on an indirect fully pumped sealed water system.

All parts that come into contact with the combustion gases are made from titanium stabilised stainless steel to ensure maximum resistance to the corrosive action of acid condensation.

The boiler must incorporate two return water connections to facilitate multiple applications e.g. CH & DHW and enables the optimum operating efficiency to be achieved.

The boilers must be designed to operate with **Natural Gas, LPG or Oil** (delete as required) using pressure-jet or premixed burners. The burner specification will enable the choice of Two Stage / Fully Modulating & Low NOx operation.

### CONTROLS

The boiler control options must be selected at the time of purchase:

- Two Stage Burner
- Modulating Burner
- BMS (Boiler Management System) 0-10V
- Oil & Dual Fuel

The boiler must include control features enabling set point adjustment, heating circuit control of one constant temperature, one variable temperature and one DHW circuit and safety lock out parameters including fault diagnosis for both boiler and external components such as sensors or pumps.

Boiler capabilities must include, with the use of external components, frost protection, weather or room compensation and system pump control.

### FLUE

The condensing boilers must be suitable for use with an open flued application in B23 configuration. The B23P configuration can only be used with a premix gas burner.

### HYDRAULIC

The condensing boiler must be suitable for connection to an indirect fully pumped sealed water system. All hydraulic connections including flow return and condensate drain must be located on the bottom or rear of the boiler. The boiler must have a maximum operating pressure of 6 bar and be suitable for heating and indirect hot water systems.

### DIMENSIONS

The condensing boiler must fit within maximum permitted floor space of 0.97m<sup>2</sup> (150 and 210kW models)/1.23m<sup>2</sup> (270 and 350kW models)/1.47m<sup>2</sup> (450 and 900kW models)/2.03m<sup>2</sup> (800 and 1000kW models)/2.40m<sup>2</sup> (1250kW model)/2.67m<sup>2</sup> (1450kW model) (delete as appropriate).

### MOUNTING / POSITIONING

The condensing boilers will be floor standing.

### EFFICIENCY

The condensing boilers are capable of high seasonal efficiencies with a minimum requirement of 95.9% and low NOx emissions no greater than 39.7mg/kWh.

### APPROVALS

The manufacturer must be ISO 9001 accredited.

### SPECIFICATION

The boiler must be capable of the below flow rates:

| BOILER MODEL | MIN FLOW (L/H) |
|--------------|----------------|
| 150          | 1,700          |
| 210          | 2,400          |
| 270          | 3,100          |
| 350          | 4,000          |
| 450          | 5,100          |
| 600          | 6,800          |
| 800          | 9,100          |
| 1000         | 11,400         |
| 1250         | 14,200         |
| 1450         | 16,500         |

### WARRANTY

The boiler must be available with a 2 year warranty.

Please note that the above information is correct at time of publication. Ideal Heating pursues a policy of continuous improvement in design and performance of its products and reserves the right to vary specification without notice.